

WHAT IS CLAIMED IS:

1 1. A wireless LAN system having an access point connected through
2 a wire network and a mobile terminal performing a wireless
3 communication with said access point, said wireless LAN system
4 comprising;

5 a selection circuit for selecting a wireless frequency usable
6 in a relevant area out of stored wireless frequency data on the
7 basis of the area information inputted into said mobile terminal
8 at the time of setting a frequency for performing a wireless
9 communication, and

10 a communication circuit through which said access point and
11 said mobile terminal perform a wireless communication with each
12 other by means of the wireless frequency selected by said
13 selection circuit.

1 2. A wireless LAN system according to claim 1, wherein said
2 stored wireless frequency data include area information and all
3 permitted wireless frequency values corresponding to the said
4 area information.

1 3. A wireless LAN system according to claim 2, wherein said
2 selection circuit performs reception operations by means of all
3 wireless frequency values permitted in said area, displays
4 wireless frequencies bringing no carrier-busy state as a result
5 of said reception operations as usable frequencies to said mobile
6 terminal, and makes a communication frequency be selected out
7 of said usable frequencies by operation of said mobile terminal.

1 4. A wireless LAN system having an access point connected through
2 a wire network, a mobile terminal performing a wireless

3 communication with said access point and a maintenance device,
4 said wireless LAN system comprising;

5 a selection circuit for selecting a wireless frequency usable
6 in a relevant area out of wireless frequency data stored in said
7 access point on the basis of the area information inputted into
8 said maintenance device at the time of setting a frequency for
9 performing a wireless communication, and

10 a communication circuit through which said access point and
11 said mobile terminal perform a wireless communication with each
12 other by means of the wireless frequency selected by said
13 selection circuit.

1 5. A wireless LAN system according to claim 4, wherein said
2 stored wireless frequency data include area information and all
3 permitted wireless frequency values corresponding to the said
4 area information.

1 6. A wireless LAN system according to claim 5, wherein said
2 selection circuit performs reception operations by means of all
3 wireless frequency values permitted in said area, displays
4 wireless frequencies bringing no carrier-busy state as a result
5 of said reception operations as usable frequencies to said
6 maintenance device, and makes a communication frequency be
7 selected out of said usable frequencies by operation of said
8 maintenance device.

1 7. A wireless LAN system having an access point connected through
2 a wire network, a mobile terminal performing a wireless
3 communication with said access point and a maintenance device,
4 said wireless LAN system comprising;

5 a selection circuit for selecting a wireless frequency usable
6 in a relevant area out of wireless frequency data stored in said
7 maintenance device on the basis of the area information inputted
8 into said maintenance device at the time of setting a frequency
9 for performing a wireless communication, and

10 a communication circuit through which said access point and
11 said mobile terminal perform a wireless communication with each
12 other by means of the wireless frequency selected by said
13 selection circuit.

1 8. A wireless LAN system according to claim 7, wherein said
2 stored wireless frequency data include area information and all
3 permitted wireless frequency values corresponding to the said
4 area information.

1 9. A wireless LAN system according to claim 8, wherein said
2 selection circuit performs reception operations by means of all
3 wireless frequency values permitted in said area, displays
4 wireless frequencies bringing no carrier-busy state as a result
5 of said reception operations as usable frequencies to said
6 maintenance device, and makes a communication frequency be
7 selected out of said usable frequencies by operation of said
8 maintenance device.

1 10. A mobile terminal of a wireless LAN system, said mobile
2 terminal comprising;

3 a selection circuit for selecting a wireless frequency usable
4 in a relevant area out of wireless frequency data stored in said
5 terminal on the basis of the area information inputted into said
6 mobile terminal at the time of setting a wireless frequency for

7 performing a wireless communication with an access point, and
8 a communication circuit for performing a wireless
9 communication with said access point by means of the wireless
10 frequency selected by said selection circuit.

1 11. A mobile terminal according to claim 10, wherein said stored
2 wireless frequency data include area information and all
3 permitted wireless frequency values corresponding to the said
4 area information.

1 12. A mobile terminal according to claim 11, wherein said
2 selection circuit performs reception operations by means of all
3 wireless frequency values permitted in said area, displays
4 wireless frequencies bringing no carrier-busy state as a result
5 of said reception operations as usable frequencies, and makes
6 a communication frequency be selected out of said usable
7 frequencies.

1 13. An access point of a wireless LAN system, being connected
2 to a maintenance device through a wire network, said access point
3 comprising;

4 a selection circuit for selecting a wireless frequency usable
5 in a relevant area out of wireless frequency data stored in its
6 own device or said maintenance device on the basis of the area
7 information inputted into said maintenance device at the time
8 of setting a wireless frequency for communicating with a mobile
9 terminal, and

10 a communication circuit for performing a wireless
11 communication with said mobile terminal by means of the wireless
12 frequency selected by said selection circuit.

1 14. An access point according to claim 13, wherein said stored
2 wireless frequency data include area information and all
3 permitted wireless frequency values corresponding to the said
4 area information.

1 15. An access point according to claim 14, wherein said selection
2 circuit performs reception operations by means of all wireless
3 frequency values permitted in said area, sends wireless
4 frequencies bringing no carrier-busy state as a result of said
5 reception operations as usable frequencies to said maintenance
6 device, and makes a communication frequency be selected out of
7 said usable frequencies by operation of said maintenance device.

1 16. An access point of a wireless LAN system, being connected
2 to a maintenance device having a man-machine interface through
3 a wire network and performing a wireless communication with a
4 mobile terminal, said access point comprising;

5 a transmission circuit for performing reception operations
6 by means of all wireless frequency values permitted in a relevant
7 area, said wireless frequency values being stored in said
8 maintenance device or its own device, on the basis of the area
9 information inputted through said man-machine interface of said
10 maintenance device at the time of setting a wireless frequency
11 for communicating with a mobile terminal, and

12 a selection circuit for making a communication frequency
13 be selected out of said usable frequencies by operation of said
14 maintenance device.

1 17. A method for setting a frequency in a wireless LAN system

2 having an access point and a maintenance device connected to
3 each other through a wire network and a mobile terminal performing
4 a wireless communication with said access point, said method
5 comprising;

6 a step of selecting a wireless frequency usable in a relevant
7 area out of stored wireless frequency data on the basis of the
8 area information inputted at the time of setting a wireless
9 frequency for the wireless LAN system to communicate, and

10 a step of making said mobile terminal and said access point
11 perform a wireless communication with each other by means of
12 said selected wireless frequency.

1 18. A method for setting a frequency in a wireless LAN system
2 according to claim 17, wherein said stored wireless frequency
3 data include area information and all permitted wireless
4 frequency values corresponding to the said area information.

1 19. A method for setting a frequency in a wireless LAN system
2 according to claim 18, wherein said selection of a usable wireless
3 frequency is performed by performing reception operations by
4 means of all wireless frequency values permitted in said area,
5 sending wireless frequencies bringing no carrier-busy state as
6 a result of said reception operations as usable frequencies to
7 said maintenance device or said mobile terminal, and making a
8 communication frequency be selected out of said usable
9 frequencies by said maintenance device or said mobile terminal.

1 20. A method for setting a frequency in a wireless LAN system
2 comprising a maintenance device having a man-machine interface,
3 an access point connected to a wire network and a mobile terminal

4 performing a wireless communication with said access point,
5 wherein;

6 said access point performs reception operations by means
7 of all wireless frequency values permitted in a relevant area
8 stored in the maintenance device or the access point on the basis
9 of the area information inputted through the man-machine
10 interface of the maintenance device at the time of setting a
11 wireless frequency for said access point to communicate with
12 the mobile terminal, sends wireless frequencies bringing no
13 carrier-busy state as a result of said reception operations as
14 usable frequencies to a maintenance person and makes the
15 maintenance person select a communication frequency out of said
16 usable frequencies, and

17 said mobile terminal performs reception operations by means
18 of all wireless frequency values permitted in a relevant area,
19 said wireless frequency values being stored in the mobile
20 terminal, on the basis of the area information inputted through
21 the man-machine interface of the mobile terminal at the time
22 of setting a wireless frequency for said mobile terminal to
23 communicate with the access point, sends wireless frequencies
24 bringing no carrier-busy state as a result of said reception
25 operations as usable frequencies to a user and makes the user
26 select a communication frequency out of said usable frequencies.